

REMARKS

Reconsideration and the timely allowance of the pending claims, in view of the foregoing amendment and following remarks, are respectfully requested.

By this Amendment, claims 1, 15, and 21 have been amended to provide a clearer presentation of the claimed subject matter. Claims 12-14 have been cancelled, without prejudice or disclaimer. Claims 23-24 have been newly added. Ample support for the amendments can be found in the application-as-filed (For example, see FIGs. 2-5, and paragraphs 32 and 40-44]. Applicant submits that no new matter has been introduced. As such, claims 1-5, 7, 15-16, and 21-24 are presented for examination of which claims 1, 15, and 21 are independent.

Withdrawn claims 8 and 17 have been amended to depend from independent claims 1 and 15, respectively. Therefore, upon allowance of claims 1 and 15, Applicant respectfully requests rejoinder of claims 8 and 17, as well as claims 9-11, 18 and 19 that directly or indirectly depend from claims 8 or 17. See MPEP, §821.04.

REJECTIONS UNDER 35 U.S.C. § 103

- i) The Examiner rejected claims 1-5, 15, 21, and 22, under 35 U.S.C. §103(a), as allegedly being unpatentable over Larkin (U.S. Patent No. 5,961,497) in view of Wiltse (U.S. Patent No. 3,880,401). Applicant respectfully traverses this rejection because Larkin and Wiltse, either alone or in combination, fails to disclose, teach or suggest all the features of Applicant's pending claims.

As indicated above, independent claim 1 positively recites, *inter alia*,

a circulating member provided in the channel tube unit below the septum, ***the circulating member being separate from the channel tube unit*** and comprising:

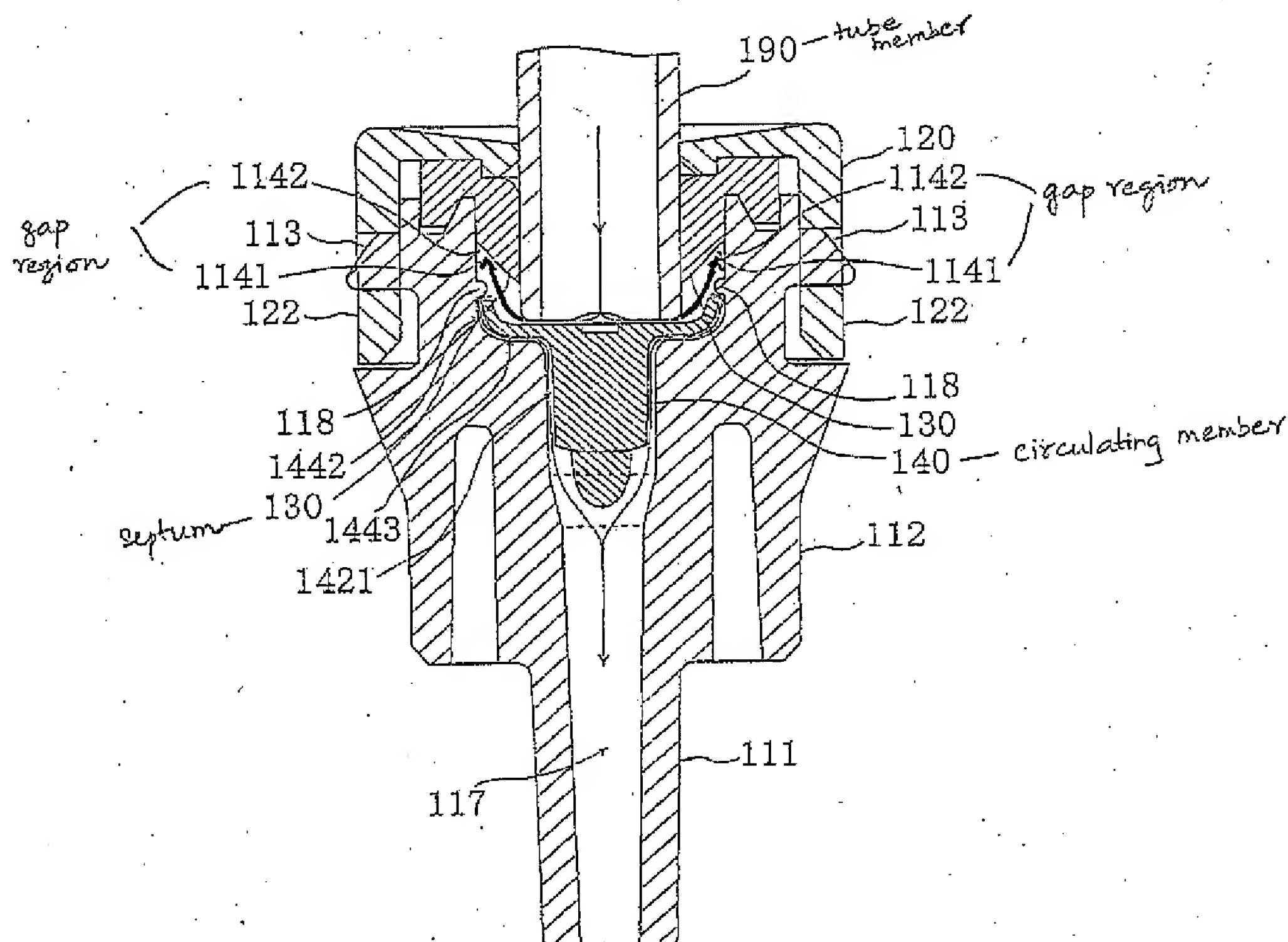
a plate portion arranged to ***change direction of flow*** of a first fluid injected from the inserted tube member or a second fluid flowing from the other end of the channel tube unit; and

an edge portion that protrudes upwardly towards the septum from a periphery of the plate portion and is arranged along an inner wall of the channel tube unit,

wherein the circulating member is configured to: *circulate the first fluid injected from the inserted tube member to a gap region between the inner wall of the channel tube unit and the septum deformed by the insertion of the tube member* and then guide the first fluid to the other end of the channel tube unit, and/or *circulate the second fluid flowing from the other end of the channel tube unit to the gap region* and then guide the second fluid to a top portion of the inserted tube member, and

wherein *an axial position of the circulating member in the channel tube unit is substantially restricted when the tube member is inserted into or pulled out of the slit*.

With this said, Applicant respectfully submits that the Larkin and Wiltse citations relied upon by the Examiner, either alone or in combination, do little in the way of rendering the claimed invention obvious. Applicant has reproduced below the as-filed FIG. 4 to aid in the Examiner's understanding of the claimed invention.



As depicted in FIG. 4, circulating member 140 comprises a plate portion and an edge portion (which can be more clearly seen in as-filed FIG. 5). The plate portion is arranged to change direction of flow of a first fluid injected from the inserted tube member or a second fluid flowing from the other end of the channel tube unit. For example, in FIG. 4, the bolded arrows depict the changed direction of flow of a first fluid that is injected from the inserted tube member by the arrangement of the plate portion of the circulating member. Furthermore, the claimed first fluid or second fluid is circulated, by the circulating member, to a gap region (for example, 1141, 1142) between the inner wall of the channel tube unit and the septum deformed by the insertion of the tube member. One advantage of this is that the stagnation of medical fluid in regions 1141 or 1142 is prevented (See paragraph 41-44 of the as-filed application).

The references relied upon by the Examiner, either alone or in combination, fail to disclose, teach or suggest this.

The Examiner admits that Larkin fails to teach that the circulating member comprises a plate portion and an edge portion. However, the Examiner erroneously relies on Wiltse for these features. In particular, the Examiner alleges that Wiltse's flow metering valve plug 30 is analogous to Applicant's plate portion of the circulating member. Assuming *arguendo* that this assumption is accurate (though Applicant does not concede this), the flow metering valve plug is not arranged to change direction of flow of the claimed first/second fluid.

Furthermore, the Examiner alleges that the "circled portion of Larkin's FIG. 2" (as shown in page 3 of the Final Action) is analogous to Applicant's circulating member. The circulating member, as claimed, is separate from the channel tube unit. On the other hand, the alleged circulating members of Larkin and Wiltse are integrated with the respective alleged channel tube units.

In addition, the alleged circulating members of Larkin and Wiltse, either alone or in combination, fail to teach or suggest that they are configured to *circulate the first fluid injected from the inserted tube member to a gap region between the inner wall of the channel tube*

unit and the septum deformed by the insertion of the tube member and then guide the first fluid to the other end of the channel tube unit, and/or *circulate the second fluid flowing from the other end of the channel tube unit to the gap region* and then guide the second fluid to a top portion of the inserted tube member.

Also, Larkin and Wiltse, either alone or in combination, fail to teach or suggest that an axial position of the circulating member in the channel tube unit is substantially restricted when the tube member is inserted into or pulled out of the slit.

Thus, for at least these reasons, Applicant submits that Larkin and Wiltse, either alone or combination, fail to disclose, teach or suggest the claimed combination of elements recited by amended claim 1. As such, claim 1 is clearly patentable. Also, claims 15 and 21 recite similar features as claim 1. Therefore, the arguments presented for claim 1 above apply to claims 15 and 21 as well. And, because claims 2-5 and 22 depend from claims 15 and 21, either directly or indirectly, claims 2-5 and 22 are patentable at least by virtue of dependency as well as for their additional recitations. Accordingly, the immediate withdrawal of the rejection of claims 1-5, 15, 21, and 22 is respectfully requested.

ii) The Examiner rejected claims 1-5, 15, 21, and 22, under 35 U.S.C. §103(a), as allegedly being unpatentable over Garrett (U.S. Patent No.4,197,848) in view of Wiltse. Applicant respectfully traverses these rejections because Garrett and Wiltse, either alone or in combination, fail to disclose, teach or suggest all the features of Applicant's pending claims.

As indicated above, independent claim 1 positively recites, *inter alia*,

a circulating member provided in the channel tube unit below the septum, *the circulating member being separate from the channel tube unit* and comprising:

 a plate portion arranged to *change direction of flow* of a first fluid injected from the inserted tube member or a second fluid flowing from the other end of the channel tube unit; and

 an edge portion that protrudes upwardly towards the septum from a periphery of the plate portion and is arranged along an inner wall of the channel tube unit,

 wherein the circulating member is configured to: *circulate the first fluid injected from the inserted tube member to a gap region between the inner wall*

of the channel tube unit and the septum deformed by the insertion of the tube member and then guide the first fluid to the other end of the channel tube unit, and/or circulate the second fluid flowing from the other end of the channel tube unit to the gap region and then guide the second fluid to a top portion of the inserted tube member, and

wherein an axial position of the circulating member in the channel tube unit is substantially restricted when the tube member is inserted into or pulled out of the slit.

With this said, Applicant respectfully submits that the Garrett and Wiltse citations relied upon by the Examiner, either alone or in combination, do little in the way of rendering the claimed invention obvious.

The Examiner admits that Garrett fails to teach that the circulating member comprises a plate portion and an edge portion. However, the Examiner erroneously relies on Wiltse for these features. In particular, the Examiner alleges that Wiltse's flow metering valve plug 30 is analogous to Applicant's plate portion of the circulating member. Assuming *arguendo* that this assumption is accurate (though Applicant does not concede this), the flow metering valve plug is not arranged to change direction of flow of the claimed first/second fluid.

The Examiner alleges that the "circled portion of Garrett's FIG. 3" (as shown in page 9 of the Final Action) is analogous to Applicant's circulating member. The circulating member, as claimed, is separate from the channel tube unit. On the other hand, the alleged circulating members of Garrett and Wiltse are integrated with the respective alleged channel tube units.

In addition, the alleged circulating members of Garrett and Wiltse, either alone or in combination, fail to teach or suggest that they are configured to *circulate the first fluid injected from the inserted tube member to a gap region between the inner wall of the channel tube unit and the septum deformed by the insertion of the tube member and then guide the first fluid to the other end of the channel tube unit, and/or circulate the second fluid flowing from the other end of the channel tube unit to the gap region and then guide the second fluid to a top portion of the inserted tube member.*

Also, Garrett and Wiltse, either alone or in combination, fail to teach or suggest that an axial position of the circulating member in the channel tube unit is substantially restricted when the tube member is inserted into or pulled out of the slit.

Thus, for at least these reasons, Applicant submits that Garrett and Wiltse, either alone or combination, fail to disclose, teach or suggest the claimed combination of elements recited by amended claim 1. As such, claim 1 is clearly patentable. Also, claims 15 and 21 recite similar features as claim 1. Therefore, the arguments presented for claim 1 above apply to claims 15 and 21 as well. And, because claims 2-5 and 22 depend from claims 15 and 21, either directly or indirectly, claims 2-5 and 22 are patentable at least by virtue of dependency as well as for their additional recitations. Accordingly, the immediate withdrawal of the rejection of claims 1-5, 15, 21, and 22 is respectfully requested.

iii) The Examiner rejected claims 7 and 16, under 35 U.S.C. §103(a), as allegedly being unpatentable over Larkin and Wiltse, in view of Manske (U.S. Patent No.4,141,379). The Examiner rejected claims 7 and 16, under 35 U.S.C. §103(a), as allegedly being unpatentable over Garrett and Wiltse, in view of Manske.

Applicant respectfully traverses these rejections because the references relied upon by the Examiner, either alone or in combination with one another, fail to disclose, teach or suggest all the features of Applicant's pending claims.

Manske fails to cure the deficiencies of Larkin/Garrett and Wiltse identified above. Furthermore, because claims 7 and 16 depend from claims 1 or 15, either directly or indirectly, claims 7 and 16 are patentable at least by virtue of dependency as well as for their additional recitations. Thus, for at least these reasons the immediate withdrawal of the rejections of claims 7 and 16 is respectfully requested.

CONCLUSION

All matters having been addressed and in view of the foregoing, Applicant respectfully requests the entry of this Amendment, the Examiner's reconsideration of this application, and the immediate allowance of all pending claims.

Applicant's representative remains ready to assist the Examiner in any way to facilitate and expedite the prosecution of this matter. If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, please contact the undersigned at the telephone number listed below.

Please charge any fees associated with the submission of this paper to Deposit Account Number 033975. The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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